an adjacent higher layer on said interlayer communication channels.

3. (Added) A system according to claim 2, wherein said USM signals comprise a plurality of data bytes in a forward error correcting channel at the link layer.

4. (Added) A system according to claim 2, wherein said USM signals comprise a modulation pattern of an optical carrier at the wavelength layer.

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5. (Added) A system according to claim 2, wherein said USM signals for controlling the protection switching on said intralyer communication channels comprise F-USM signals at the fiber layer, W-USM signals at the wavelength layer, and L-USM signals at the link layer.

6. (Added) A system according to claim 2, wherein said DSM signals for controlling the protection switching on said interlayer communication channels comprise W-DSM signals at the fiber layer for signaling to the wavelength layer, L-DSM signals at the

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wavelength layer for signaling to the link layer, C-DSM signals at the link layer for signaling to a circuit layer.

7. (Added) A system according to claim 2, wherein said protection switching elements initiate the protection switching in response to said USM signals.

8. (Added) A system according to claim 2, wherein said alternate communication paths are developed at said predetermined network connections in response to receiving said DSM signals from said failure detectors.

9. (Added) A system according to claim 1, wherein said communication failures detected by said failure detectors comprise a loss of signal failure, and a loss of frame event failure at the link layer.

10. (Added) A system according to claim 1, wherein the protection switching comprises span switching and route switching.

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11. (Added) A method for protecting a wavelength division multiplexing optical communications network operating at the link, wavelength and fiber layers, comprising the steps of:

(a) detecting communication failures of paths in the network at predetermined positions in each of the link, wavelength and fiber layers;

(b) generating failure signals in response to the communication failures detected at said step (a);

(c) sending said failure signals on intralayer communication channels within each of the link, wavelength and fiber layers to said predetermined network connections within a respective one of the layers to initiate protection switching;

(d) sending said failure signals on interlayer communication channels to said predetermined network connections between adjacent higher layers of the link, wavelength, fiber and circuit layers to develop alternate communication paths; and

(e) controlling said protection switching in response to said predetermined network connections receiving said failure signals sent at said steps (c) and (d).

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12. (Added) A method according to claim 11, wherein said failure signals generated at said step (b) comprise upstream signal message (USM) signals for controlling said protection switching of said predetermined network connections on said intralayer communication channels and downstream signal message (DSM) signals for controlling said protection switching of said predetermined network connections of said adjacent higher layers on said interlayer communication channels.

13. (Added) A method according to claim 12, wherein said protection switching is initiated at said step (c) in response to sending said USM signals.

14. (Added) A method according to claim 12, wherein said alternate communication paths are developed at said step (d) in response to sending said DSM signals.

15. (Added) A method according to claim 11, wherein said protection switching comprises span switching and route switching.

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